

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-24(Canceled).

25 (Previously Presented): A diagnostic composition comprising an isolated polypeptide having an amino acid sequence of 95% or greater sequence identity with the amino acid sequence of SEQ ID NO: 4, or having an amino acid sequence which comprises an epitope of said SEQ ID NO: 4, said polypeptide associated with a suitable detectable label.

Claims 26-29 (Canceled).

30 (Previously Presented): The composition according to claim 50, wherein said composition comprises a second polypeptide or protein.

31 (Previously Presented): The composition according to claim 30, wherein said polypeptide is fused to said second polypeptide or protein.

32 (Previously Presented): The composition according to claim 30, wherein said second polypeptide or protein is an antigen from a pathogenic bacterial species that is heterologous or homologous to *Neisseria gonorrhoeae* or *Neisseria meningitidis*.

33(Previously Presented): The composition according to claim 50, comprising an adjuvant.

34(Previously Presented): The composition according to claim 50, wherein said composition induces antibodies which recognize a protein in multiple *Neisseria gonorrhoeae* strains and *Neisseria meningitidis* strains, said protein appearing as a reactive band of approximately 85 kD on a Western blot.

35(Previously Presented): The composition according to claim 34, wherein said *Neisseria meningitidis* strains are selected from the group consisting of *N. meningitidis* HH, *N. meningitidis* MP78, *N. meningitidis* MP3, and *N. meningitidis* MP81.

36(Previously Presented): The composition according to claim 34, wherein said *Neisseria gonorrhoeae* strains are selected from the group consisting of *N. gonorrhoeae* FA19, *N. gonorrhoeae* FA635, *N. gonorrhoeae* FA1090, *N. gonorrhoeae* JS1, *N. gonorrhoeae* MS11, and *N. gonorrhoeae* F62.

Claims 37-38(Canceled).

39(Previously Presented): The composition according to claim 25, wherein said polypeptide is associated with nitrocellulose paper or a latex bead.

40(Previously Presented): The composition according to claim 25, wherein said composition comprises a second polypeptide or protein.

41(Previously Presented): The composition according to claim 40, wherein said second polypeptide or protein is fused to said polypeptide.

42 (Previously Presented): The composition according to claim 40, wherein said second polypeptide or protein is an antigen from a pathogenic bacterial species that is heterologous or homologous to *Neisseria gonorrhoeae* or *Neisseria meningitidis*.

Claim 43(Canceled).

44 (Previously Presented): The composition according to claim 25, wherein said composition induces antibodies which recognize a protein in multiple *Neisseria gonorrhoeae* strains and *Neisseria meningitidis* strains, said protein appearing as a reactive band of approximately 85 kD on a Western blot.

45 (Previously Presented): The composition according to claim 44, wherein said *Neisseria meningitidis* strains are selected from the group consisting of *N. meningitidis* HH, *N. meningitidis* MP78, *N. meningitidis* MP3, and *N. meningitidis* MP81.

46 (Previously Presented): The composition according to claim 44, wherein said *Neisseria gonorrhoeae* strains are selected from the group consisting of *N. gonorrhoeae* FA19, *N. gonorrhoeae* FA635, *N. gonorrhoeae* FA1090, *N. gonorrhoeae* JS1, *N. gonorrhoeae* MS11, and *N. gonorrhoeae* F62.

Claims 47-49(Canceled)

50 (Currently Amended): An immunogenic composition comprising an isolated polypeptide comprising an amino acid sequence having 95% or greater sequence identity with the amino acid sequence of SEQ ID NO: 4, and a pharmaceutically acceptable carrier, wherein said polypeptide in said composition induces antibodies in a mammal that bind to said amino acid sequence of SEQ ID NO: 4 and that interfere with the ability of *Neisseria gonorrhoeae* bacteria to adhere to mammalian epithelial cells in a as measured by the gonococcal cell adherence assay.

Claim 51(Canceled).

52 (Previously Presented): The composition according to claim 50, wherein said polypeptide contains one to four conservative amino acid replacements in the amino acid sequence of SEQ ID NO: 4.

Claims 53-54(Canceled)

55 (Currently Amended): An immunogenic composition comprising an isolated polypeptide and a pharmaceutically acceptable carrier, said polypeptide comprising an epitope of at least 8 consecutive amino acids within the amino acid sequence of SEQ ID NO: 4, wherein said polypeptide in said composition induces antibodies in a mammal that bind to said amino acid sequence of SEQ ID NO: 4 and that interfere with the ability adherence of *Neisseria gonorrhoeae* bacteria to adhere to mammalian epithelial cells as measured by the gonococcal cell adherence assay.

56(New): An immunogenic composition comprising an isolated polypeptide comprising an amino acid sequence having 90% or greater sequence identity with the amino acid sequence of SEQ ID NO: 4, and a pharmaceutically acceptable carrier, wherein said polypeptide in said composition induces antibodies in a mammal that bind to said amino acid sequence of SEQ ID NO: 4 and that interfere with adherence of *Neisseria gonorrhoeae* as measured by the gonococcal cell adherence assay.

57(New): The composition of claim 50 wherein said isolated polypeptide is in a purified form.

58(New): The composition of claim 55 wherein said isolated polypeptide is in a purified form.